

# MISSOURI. Conservationist

VOLUME 78 ISSUE 3, MARCH 2017 • SERVING NATURE & YOU





## [NOTE TO OUR READERS]

# Get Out There and Make Some Tracks

In conservation management, we actively seek and promote a diversity of plant and animal life because it produces the best results in our mission to protect and manage Missouri's fish, forest, and

wildlife resources. So, too, do we appreciate the variety of opportunities Missourians have available to use, enjoy, and learn about these resources.

As a hunter and angler, I've spent a tremendous amount of time afield in anticipation of the harvest. However, I also derive considerable satisfaction from simply being outdoors with the expectation of bringing nothing back beyond the memories of the sights and sounds of nature in all its splendor. While my time outdoors is often spent alone, I know I'm not alone in my enjoyment of this pastime.

According to Department of Conservation and U.S. Fish and Wildlife Service research, Missouri has an estimated 1.7 million "wildlife watchers," who spend \$940 million in pursuit of activities ranging from organized bird watching expeditions to impromptu trail hikes at the local conservation area or nature center. In total, these activities support an estimated 18,725 Missouri jobs.



One frequent wildlife-watching destination, especially for birders, is St. Louis' Tower Grove Park, which has seen more than 200 species of birds and draws an estimated 5,000 birders annually. To find out more about what makes this St. Louis landmark such an avian mecca, see this month's article *Tower Grove Park* (Page 16). On the other side of the state, at the Anita B. Gorman Discovery Center in Kansas City, parents are instilling an appreciation of nature in their children as their internet-based group, Hike It Baby, takes the toddlers on outdoor adventures at many of the Department's nature centers and conservation areas. The details are available in the story *Never Too Young to Hike* (Page 10).

Whether you're watching woodpeckers or traipsing down trails, research shows that simply being outdoors has physical and mental benefits, all of which are accessible and affordable for all Missourians. So let's get out there and make some tracks. Hope to see you there.

*Sara Parker Pauley*

—Sara Parker Pauley, director



**1.7 million**  
estimated wildlife  
watchers in Missouri

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Missouri jobs

## FEATURES

- 10 **Never Too Young to Hike**  
*by Bill Graham, photographs by David Stonner*  
Families link up to explore nature on conservation trails
- 16 **Tower Grove Park**  
*story and photographs by Danny Brown*  
A magnet for birds and birders
- 24 **Answering the Call**  
*story and photographs by Bill Graham*  
The Department of Conservation helps Missouri communities hold the line against wildfires

Cover: Great horned owlets survey Tower Grove Park from their hollow. To read more about the St. Louis park, turn to Page 16. Photograph by Danny Brown

📷 500mm lens + 1.4x teleconverter  
f/5.6 • 1/320 sec • ISO 400

## DEPARTMENTS

- 2 **Letters**
- 4 **Hunting & Fishing Calendar**
- 4 **Agent Notes**
- 5 **Ask MDC**
- 6 **News & Events**
- 30 **Plants & Animals**
- 32 **Places to Go**
- 33 **Discover Nature**

## WHAT IS IT?

Our photographers have been busy exploring the intricacies of outdoor Missouri. See if you can guess this month's natural wonder. The answer is revealed on Page 7.





## BALD EAGLES

I live in New Hampshire, but I grew up in Missouri, and I always enjoy getting my copy of the *Conservationist* to see pictures of familiar landscapes and learn about new ones. I am a teacher, and I frequently post pictures of birds and animals from your magazine in my classroom. Special thanks for the beautiful photography of Noppadol Paothong, whose images must take a lot of patience and artistry to capture. I especially enjoyed the shots of bald eagles in the December 2016 issue [*Monitoring Bald Eagles in Missouri*; Page 10]. Thank you for a great magazine.

*Kelly Flynn, Exeter, NH*

Had a wonderful time Jan. 7 at all of the Eagle Day venues. Programs were informative and very well planned. Learned a great deal and had fun doing it! Thank you for your time and work.

*Frank and Kim Ferguson, Gravois Mills*

## LONG-TIME READERS

I just got through reading my *Missouri Conservationist* magazine. I want you to know how much I enjoy all the information you pass on to us readers. I'm an older lady (80), and I used to hunt a lot when I was younger. I enjoy reading about the young hunters and fishermen. Reading about the monarch butterflies is so interesting — all your articles are great. Just keep up the good work.

*Lois Short, N.W. Missouri*

The January issue of the *Missouri Conservationist* is one of the best I have read in nearly 40 years. It is so informative in all areas of what you do for wildlife, the forest, and us. Thank you for what you do.

*Don Clements, via Facebook*

## MOTH

I was really excited about the latest issue, Volume 78, with the snowberry clearwing moth [*Annual Review*; January; Page 21]. This past summer, after my butterfly bush was in full bloom, I caught sight of an insect fluttering around that I had never seen before. I went to grab my camera and took quite a few shots, but I never got a good one because the wings always turned out blurry. He stayed in one spot long enough for me to take my camera away from my eye, spot where he had flown to, focus the camera again, and attempt to get a picture. I only got a good picture of the body with blurry wings.

Thanks again for a delightful magazine. My dad used to get this magazine when I was a child, and I really liked it then, too.

*Joyce Biggs, Grain Valley*

## WONDERFUL WALLEYE

Thank you for the walleye article [*Wonderful Walleye*; February; Page 18]. Having enjoyed catching and eating many walleyes when in Minnesota, I haven't had much luck back here in Missouri. After reading this latest article by Jim Low, I am getting enthused to go after some of these rascals in northwest Missouri in early spring, as was suggested.

*Donald A. Potts, Independence*

## PROFESSIONAL AGENTS

After a recent hunt at Maple Leaf Conservation Area, we met one of your agents in the parking lot. This officer was awesome. We had a young boy on his first hunt with us, and your officer was nothing but professional. My young friend was scared at first, but we assured him he was doing his job so that we would have a place to hunt in the future. The officer was excellent all around, and he made the young man a believer that being legal and respectful will ensure we always have a place to hunt.

I live in Kansas, but I have never hunted one day in the state. I grew up in central Missouri, and I hunt only in Missouri due to the treatment you get in the field by your agents. Thanks to him and the Department for making great hunting experiences.

*Hadley Turner, Lenexa, KS*



## Reader Photo

## HOME BUILDERS

Trina King of St. Louis captured this photo of caddisfly larvae and the portable protective cases they build for themselves at Rockwoods Reservation in St. Louis County. King, an avid participant in the Missouri Master Naturalist Program, began studying the insects in earnest after encountering them. "I knew what they were, but after watching them move around and seeing how beautiful they are, I had to research everything I could find," said King. "This particular kind uses tiny rocks and sand held together by silk to create their little homes." King says she spends as much time as possible outdoors and loves to study nature. "I'm outside every single day studying and exploring, whether it's my backyard or a longer hike."



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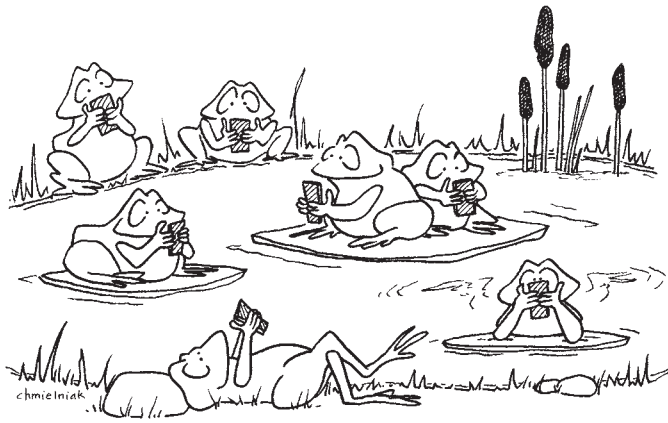
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Where once frogs called, now they text.

## Agent Notes

### Mid-March Marks Paddlefish Season

AS A TEENAGER growing up on the Missouri, Mississippi, and Meramec rivers, I vividly remember the first time I went snagging for paddlefish or “spoonbill.”

A common misconception amongst some anglers is that snagging is limited to impoundments, but most snagging is done on Missouri’s popular river systems. Snagging is an art that can be difficult to master, but as a 17-year-old, I remember how quickly I learned the skill. All the casting and reeling practice paid off when I hooked into a 38-inch spoonbill. The fight and power that 3-foot paddlefish had amazed me! This was really something to appreciate, as it took nearly 15 minutes to haul in the fish.

Paddlefish season is designed around their spawning season, which is typically from March to the end of April. The best snagging conditions occur when water temperatures reach 50 to 55 degrees and there is an increase in water flow and a rise in the river. For successful snagging, find a deep hole where the fish stage.

When snagging from a boat, remember to wear your personal floatation device. It is important to know the rules and regulations, which can be found in 3 CSR 10-6.525 of the *Wildlife Code of Missouri*.

Kyle Dunda is the conservation agent for Jefferson County. If you would like to contact the agent for your county, phone your regional conservation office listed on Page 3.



# HUNTING & FISHING CALENDAR

FISHING	OPEN	CLOSE
Black Bass		
Impounded waters and most streams north of the Missouri River	All year	None
Most streams south of the Missouri River	05/27/17	02/28/18
Bullfrogs and Green Frogs	06/30/17 at sunset	10/31/17
Nongame Fish Giggling		
Impounded Waters		
sunrise to sunset	02/01/17	09/14/17
Paddlefish		
Statewide	03/15/17	04/30/17
Mississippi River	03/15/17	05/15/17
Trout Parks		
Catch-and-Keep	03/01/17	10/31/17
HUNTING	OPEN	CLOSE
Bullfrogs and Green Frogs	06/30/17 at sunset	10/31/17
Coyote (restrictions apply during April, spring turkey season, and firearms deer season)	All year	None
Deer		
Archery	09/15/17 11/22/17	11/10/17 01/15/18
Firearms		
Early Youth Portion	10/28/17	10/29/17
November Portion	11/11/17	11/21/17
Late Youth Portion	11/24/17	11/26/17
Antlerless Portion (open areas only)	12/01/17	12/03/17
Alternative Methods Portion	12/23/17	01/02/18
Groundhog (woodchuck)	05/08/17	12/15/17
Pheasant		
Youth	10/28/17	10/29/17
Regular	11/01/17	01/15/18
Quail		
Youth	10/28/17	10/29/17
Regular	11/01/17	01/15/18
Rabbit	10/01/17	02/15/18
Squirrel	05/27/17	02/15/18
Turkey		
Archery	09/15/17 11/22/17	11/10/17 01/15/18
Firearms		
Youth	04/08/17	04/09/17
Spring	04/17/17	05/07/17
Fall	10/01/17	10/31/17
Waterfowl	see the <i>Waterfowl Hunting Digest</i> or <a href="http://short.mdc.mo.gov/ZZx">short.mdc.mo.gov/ZZx</a>	
TRAPPING	OPEN	CLOSE
Beaver and Nutria	11/15/16	03/31/17

For complete information about seasons, limits, methods, and restrictions, consult the *Wildlife Code of Missouri* and the current summaries of *Missouri Hunting and Trapping Regulations* and *Missouri Fishing Regulations*, *The Spring Turkey Hunting Regulations and Information*, *the Fall Deer & Turkey Hunting Regulations and Information*, *the Waterfowl Hunting Digest*, and *the Migratory Bird Hunting Digest*. For more information, visit [short.mdc.mo.gov/ZZf](http://short.mdc.mo.gov/ZZf) or permit vendors.



# Ask MDC

**Address:** PO Box 180, Jefferson City, MO 65102-0180  
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Trumpeter swan



Mute swan



Tundra swan

## I thought I saw a trumpeter swan. I later learned it was a mute swan. Can you help me understand the differences between these two species?

Three species of swan — the trumpeter swan (*Cygnus buccinator*), tundra swan (*Cygnus columbianus*), and mute swan (*Cygnus olor*) — can be seen in Missouri.

To tell the difference, look at the beak. Mute swans have orange bills with prominent black knobs on their foreheads, while trumpeter and tundra swans have nearly all black bills.

Trumpeter swans hold their heads aloft while swimming, while mutes generally hold their necks curved gracefully, with their beaks pointed downward.

The differences between trumpeter and tundra swans are less obvious, but not difficult to identify. Trumpeter swans are larger than tundra swans, if seen together, and tundra swans' bills usually show a yellow spot at the base.

Trumpeter swans migrate to

Missouri from northern states as open water freezes. Tundra swans are rare and seen only occasionally while passing through in the winter. Mute swans were introduced from Eurasia and now breed in the wild.

## Last June, all the leaves on some of my oak trees dropped quickly and the trees died. How can I save the rest of my oak trees?

This sounds like a case of oak wilt, one of Missouri's most destructive tree diseases.

In red oaks, the first symptom of oak wilt is usually the browning and wilting of leaves in the upper crown in early summer. Rapid defoliation can occur within two to six weeks of initial infection, and death occurs within a year. While a single tree may be affected initially, symptoms may occur in adjacent trees the following year. Once an infected tree shows symptoms, it cannot be saved. But treatments can help protect nearby healthy oaks.

A fungus that spreads when sap-

feeding beetles carry spores to fresh wounds during the early part of the growing season causes the disease. Once established in a tree, the fungus can move via root grafts connecting nearby oaks.

To prevent the spread of oak wilt, forest health experts ask landowners to avoid pruning trees from mid-March through June. Instead, try to trim trees during winter dormancy.

Oaks become more susceptible to wilt a few weeks before bud break. Fresh wounds at this time attract insects that spread the disease. If pruning is absolutely necessary during this window of time, the immediate use of wound dressing — available at garden centers — is a must. These wound dressings are not recommended to protect tree wounds at other times.

For more information, visit [short.mdc.mo.gov/Z3i](http://short.mdc.mo.gov/Z3i).

## Do all snakes hatch from eggs?

No, but most do. About 70 percent of the world's snakes lay soft, leathery eggs.

The remaining species give birth to live young. Nurtured within the mother's body, the embryo is often enclosed in a clear, thin membrane with a yolk sac for nutrition. Scientists are still in the process of learning more about the physiology of reptile reproduction via live birth.

About half of Missouri's snakes — including species such as ratsnakes, kingsnakes, and racers — lay eggs. The remaining species bear young that emerge active and fully developed. This group includes watersnakes, gartersnakes, and all venomous snakes.

Typically, egg-laying snakes live in climates where warm weather helps incubate the eggs. Many live-birthing snakes reside in colder or arid locales where this adaptation helps protect the young until they are born. However, exceptions always exist in the natural world.



## Paddlefish Snagging Season Opens March 15

Missouri's annual spring paddlefish snagging season is a popular pastime for thousands of anglers. The state's major paddlefish snagging waters include Lake of the Ozarks, Truman Lake, and Table Rock Lake. Paddlefish snagging season for these and most other waters in the state runs March 15 through April 30. The season for the Mississippi River is March 15 through May 15, with a fall season of Sept. 15 through Dec. 15.

Also known as "spoonbills" because of the shape of their snouts, paddlefish take seven or eight years to grow to legal size and in Missouri can live more than 20 years. The state record paddlefish, taken in 2015 on Table Rock Lake, was 31 years old. The fish feed on plankton and other microscopic prey. These filter feeders do not take bait and must be snagged using large hooks that catch in the mouth, gills, or other areas of their bodies.

The success of paddlefish snagging is dependent on weather conditions, primarily water temperature and flow.

"The best snagging conditions occur when water temperature reaches 50 to 55 degrees and there is an increase in water flow," MDC Fisheries Management Biologist Trish Yasger said. "This prompts them to move upstream to spawn. We don't usually see a lot of big fish being caught on opening day. Early harvest is typically dominated by local fish and small males with the occasional large female. As water temperature and flow increase, you will start seeing more of the larger females."

Yasger added snagging tends to be better early in the season at Table Rock Lake and better in April at Lake of the Ozarks and Truman Lake.

### MDC Stocking Efforts

MDC makes paddlefish snagging possible in the Show-Me State through annual stocking of fingerlings raised at its Blind Pony Hatchery near Sweet Springs. The fingerlings are released into Lake of the Ozarks, Truman Lake, Table Rock Lake,





**MDC biologists use gill nets in the James River arm of Table Rock Lake to catch paddlefish for use as hatchery broodstock.**

and the Black River. Last year, more than 314,000 foot-long fingerlings were stocked — MDC's largest stocking of paddlefish. These fish will be large enough to harvest beginning in 2023. The annual stocking is necessary because dams and other barriers to spawning areas have eliminated sustainable natural reproduction in the lakes.

Yasger noted MDC released an especially large number of fingerlings into Lake of the Ozarks, Truman Lake, and Table Rock Lake in 2008. The more than 164,000 fingerlings released are now 9 years old and will continue to provide good numbers of fish for snaggers to harvest.

"Without annual stocking by MDC staff, this popular pastime and food source would go away," said Yasger. "We need help from snaggers to learn more about and to better manage this popular game fish, so we can keep paddlefish snagging great for many years to come."

### Snag a Tag, Get a Reward

MDC is in its third year of a five-year tagging project to help monitor paddlefish numbers and improve species management. Staff are placing metal jaw tags on up to 6,000 paddlefish netted in Lake of the Ozarks, Truman Lake, and Table Rock Lake, and up to 1,000 netted from the Mississippi River. Yasger encourages all snaggers to report tagged paddlefish and to not remove tags from undersized or released paddlefish.

"We will send a special 'I caught a Missouri paddlefish!' t-shirt to each snagger who returns or reports their first tagged fish," Yasger explained. "All returned and reported tags will be placed into an annual drawing, held in July, for cash prizes, with a grand prize of \$500."

Tags or photos of tags from harvested paddlefish must be submitted for reward eligibility. Snaggers must include the following information with each tag:

- Date caught
- Location of catch, including reservoir or river, mile marker, and county
- Tag number
- Fish length from eye to fork of the tail
- Snagger's name and complete address

Report tags by calling 573-579-6825, or mail the information with the flattened tag to

Missouri Department of Conservation, 3815 East Jackson Blvd., Jackson, MO 63755, or email Trish Yasger at [Trish.Yasger@mdc.mo.gov](mailto:Trish.Yasger@mdc.mo.gov).

Learn more about the tagging project at [short.mdc.mo.gov/Z3e](http://short.mdc.mo.gov/Z3e).

### Report Transmitters

MDC biologists are implanting ultrasonic transmitters in adult paddlefish at Truman Lake, Lake of the Ozarks, Table Rock Lake, and the Mississippi River to track their movements and gain other important information. MDC asks that all snaggers who harvest fish with a transmitter



## WHAT IS IT?

### Henbit | *Lamium amplexicaule*

Henbit is a branching, soft, weedy plant with square stems. This nonnative weed blooms from February–November, and can be found statewide, but is most common south of the Missouri River. Its flowers are small, bright lavender with red spots, and have an unpleasant odor. Except for the leaves right beneath the flower clusters, all leaves are rounded, scalloped, and close to the ground. Henbit can grow up to 10 inches tall. Hummingbirds, butterflies, and bees drink nectar from these early-blooming flowers, and some species of birds consume the minute seeds. The plants can play a role in binding soils that are otherwise bare and prone to erosion. —*photograph by Jim Rathert*

## [NEWS & EVENTS]

(continued from Page 7)

report it by calling 573-579-6825 or by emailing Trish Yasger at [Trish.Yasger@mdc.mo.gov](mailto:Trish.Yasger@mdc.mo.gov).

"It is important to return transmitters so they can be implanted in other fish," said Yasger.

### Help Smaller Fish Survive

Yasger reminds snaggers to help undersized snagged fish survive to grow larger.

"Do not land paddlefish with gaffs. This can fatally injure sublegal fish. Use large landing nets," she said. "Remove hooks carefully and get sublegal fish back into the water as quickly as possible. Wet your hands before touching them and avoid excessive handling. Do not pass them around for photos and hold fish firmly to avoid dropping them. Never put fingers in the gills or eyes."

### Regulation Requirements

Unless exempt, anglers must have a current fishing permit to snag or to operate a boat for snaggers. The daily limit is two paddlefish, and snaggers must stop snagging after obtaining the daily limit on Lake of the Ozarks and Truman Lake and their tributaries, and on the Osage River below Bagnell Dam. The minimum legal body length for paddlefish at Lake of the Ozarks, Truman Lake, Table Rock Lake, and their tributaries is 34 inches, measured from the eye to the fork of the tail. The minimum legal body length is 24 inches on the Osage River below Bagnell Dam and in other Missouri waters. All paddlefish under the legal minimum length must be returned to the water unharmed immediately after being caught.

The *Wildlife Code of Missouri* requires the head, tail, and skin to remain attached to all paddlefish while on the water, so paddlefish should not be cleaned until off of the water. Also, extracted paddlefish eggs may not be possessed while on waters of the state or adjacent banks and may not be transported. Paddlefish eggs may not be bought, sold, or offered for sale. Additionally, paddlefish or their parts, including eggs, may not be used for bait.

Learn more about Missouri's official aquatic animal, regulations, snagging reports, and more at [short.mdc.mo.gov/Z3n](http://short.mdc.mo.gov/Z3n).

### MDC, Anglers Prepare for Trout Opener

March 1 marks the opening of catch-and-keep trout fishing at Bennett Spring State Park near Lebanon, Montauk State Park near Licking, Roaring River State Park near Cassville, and Maramec Spring Park near St. James. The catch-and-keep season at the trout parks runs through Oct. 31.

MDC operates trout hatcheries at all four parks. To help predict angler turnout on opening day, hatchery staff rely on permit records going back more than 70 years. Montauk, Bennett Spring, and Roaring River hatchery staff expect crowds of about 2,000 anglers at each location, and Maramec Spring staff is planning for a crowd of about 1,000. Based on these predictions, hatchery staff will stock three trout per expected angler on opening day for a total of more than 21,000 fish, averaging a foot in length. The hatcheries will also stock a mix of "lunkers," ranging from 3 to 10 pounds.

Trout anglers need a daily trout tag to fish in Missouri's trout parks. Daily trout tags can only be purchased at each of the four trout parks. Missouri residents 16 to 64 need a fishing permit in addition to the daily tag. Nonresidents 16 and older also need a fishing permit. Missouri fishing permits are available from numerous vendors around the state, online at [mdc.mo.gov/buypermits](http://mdc.mo.gov/buypermits), or through MDC's free mobile apps, MO Hunting and MO Fishing, available for download through Google Play for Android devices or the App Store for Apple devices.

For more information on trout fishing in Missouri, visit [short.mdc.mo.gov/Z3m](http://short.mdc.mo.gov/Z3m).

To prevent the spread of the invasive alga



### Spring Turkey Hunting in Missouri

The season starts with the youth portion April 8 and 9, followed by the regular season April 17 through May 7. Get details on hunting regulations, harvest limits, allowed methods, required permits, and other related information from our *2017 Spring Turkey Hunting Regulations and Information* booklet available where permits are sold. Get more information on turkey hunting at [short.mdc.mo.gov/Z3h](http://short.mdc.mo.gov/Z3h)





**An angler catches trout during opening day at Bennett Spring State Park.**

called didymo or “rock snot,” trout anglers are reminded that the use of shoes, boots, or waders with porous soles of felt, matted, or woven fibrous material is prohibited at all trout parks, trout streams, Lake Taneycomo, and buffer areas. Get more information at [short.mdc.mo.gov/Z3s](http://short.mdc.mo.gov/Z3s).

## MDC Wild Webcast on Fishing

Join us March 8 from 1–2 p.m. to learn more about fishing in Missouri through our MDC Wild Webcast: Discover Nature Fishing. The webcast will feature a short presentation by MDC fisheries staff, followed by an open question session. To register, visit [short.mdc.mo.gov/Z38](http://short.mdc.mo.gov/Z38).

MDC will also offer Wild Webcasts on birding in May, mountain lions in September, and invasive animals and plants in November. Dates and other details will be available in future issues of the *Missouri Conservationist*.

## Tour Your State Forest Nursery April 1

Curious about how the Conservation Department’s George O. White State Forest Nursery near Licking operates? Department staff will offer behind-the-scenes public tours this spring. Tours will showcase how the nursery grows, stores, and ships almost 3 million seedlings each year. The open house is scheduled April 1 from 9 a.m. to 2 p.m. To reserve a spot on the tour, call 573-674-3229, ext. 0.

## DID YOU KNOW?

*We work with you and for you to sustain healthy fish, forests, and wildlife*

### MDC Helps Prevent and Fight Wildfires

Each year, the Missouri Department of Conservation works with fire departments around the state to help put out thousands of wildfires that can consume tens of thousands of acres. Any person who starts a fire for any reason is responsible for its control and any potential damages it may cause. You can help prevent wildfires by observing the following tips.

#### » Avoid burning outdoors on dry, windy days.

- The main cause of wildfire in Missouri is improper burning of debris, such as trash and brush piles.
- Dry fuel — combined with high temperatures, low humidity, and high winds — makes fire nearly impossible to control.
- Check with local fire departments regarding local burn bans that may be in place.

#### » Think twice before driving off-road.

- Wildfires can start when fine, dry fuels like grass come in contact with catalytic converters.
- Never park over tall, dry grass or piles of leaves that can touch the underside of a vehicle.
- When driving vehicles off-road, regularly inspect the undercarriage to make sure that fuel and brake lines are intact and no oil leaks are apparent.
- Check for the presence of spark arresters on ATV exhausts.
- Always carry an approved fire extinguisher in vehicles you use off-road.

#### » Practice campfire safety.

- Clear a 10-foot zone around fire rings.
- Store unused firewood a good distance from the fire.
- Never use gasoline, kerosene, or other flammable liquid to start a fire.
- Keep campfires small and controllable.
- Keep fire-extinguishing materials, such as a rake, shovel, and bucket of water, close by.
- Never leave a campfire unattended. Extinguish campfires each night and make sure all coals are cold before leaving camp.

#### » If you smoke, extinguish cigarettes completely and safely.

- Dispose of butts responsibly.

#### » Don’t delay calling for help.

- Call 911 at the first sign of a fire getting out of control.

#### » Report forest arson.

- Vandals set many wildfires. If you suspect arson, call Operation Forest Arson at 800-392-1111. Callers will remain anonymous and rewards are possible.





# NEVER TOO YOUNG TO HIKE

**Families link up to explore  
nature on conservation trails**





• BY BILL GRAHAM •  
PHOTOGRAPHS BY DAVID STONNER

It's fun to share nature trails with kids. Parents or grandparents can help a child explore wonders like bristly caterpillars, nubby-capped acorns, and lacy flowers. And sometimes toddlers remind grown-ups to look, listen, and touch. In Kansas City and St. Louis, internet-linked Hike It Baby groups make it a point to get youngsters outdoors early for hikes on public lands, including MDC trails. Parents carry infants in slings, push baby strollers, or follow youngsters where curiosity leads them. One of the group's slogans is "never too young."

During a visit to the Anita B. Gorman Discovery Center in Kansas City, hike leaders Emily, Hamilton, Aspen, and their fellow toddlers explored a trail amid prairie grasses and sunflowers towering high above them. The youngsters poked their fingers at goldenrod blooms, wood chips, and any leaf catching their eye. A path led them to shrubs and trees where they crawled through holes carved in giant bur oak log sections. Watchful moms and dads, having almost as much fun as the children, waited for the next steps on the trail.

Find a Hike it Baby group near you or start your own at [HikeItBaby.com](http://HikeItBaby.com)

### Accessible Trails Get Kids Into Nature

"This is a place where we can let them play in nature without having to worry about them running off too far into the woods," said Kristin Fritchman of Olathe in the Kansas City metro area. "The trail is level, and we can let them out in nature and see them at their play."

Conservation areas throughout Missouri provide places to hike, from short and easy-to-walk paved trail loops to long and more challenging dirt or wood-chip paths. Disabled-accessible trails wind through woods and native prairie grasses. Nature and interpretive centers double as trailheads and offer parking, restrooms, and interpretative signs or nature exhibits. Many rural conservation areas have parking lots and privies at trailheads.

"I've been hiking with Emily since she was 1 month old," Fritchman said. "The idea," she said, "is getting kids out in nature early so they love it."



### Children Learn to Lead the Way

Family hikes get the grownups outdoors, too. As children grow older, walking and running on the paths, they often become leaders for the guardians trailing behind.

"They'll find things that we wouldn't notice," Fritchman said. "They will spot a caterpillar, snails, a turtle. It's nice for us as adults to connect with nature, too."

Chad Opela of Holden watched his daughter, Aspen, 2, as she veered off the trail to peer at flowers. She enjoys the hikes and getting outdoors in nature.

Melody Valet of Raytown enjoys following her son, Gideon, on the toddler-led hikes because the pace is slow and grownups see more as they slow down, too. She helped organize the Kansas City Hike It Baby group because she wanted something that benefited her as well as her two children.

"I thought, wow, I can start something I can enjoy," Valet said, "and here we are tagging along and loving being in the outdoors."

MDC areas are among her favorite places to schedule hikes.

"It's not just mowed grass like a park," Valet said. "You get to see all the other stuff, like the bugs and bunnies."

### Grandparents Take the Lead, Too

Grandparents Tim and Pat Dade enjoy leading their family on hikes. Their favorite hike is through the oak-hickory forest along the 1.5-mile Habitat Trail at the Burr Oak Woods Nature Center in Blue Springs.

The Dades' daughters, Brecklyn Findley and Jillian Littlejohn, grew up playing in a wooded area behind their house. Now, as moms, they want to introduce their children to the fun of



Runge Conservation Nature Center in Jefferson City

finding wonders in the woods, and they enjoy being outdoors, too.

"I like being able to do this with my kids," Littlejohn said, "and I'm thankful they can have these experiences even though we live in the city. I also like how they're able to run and explore."

The group passed an interpretive sign about plants and animals at a limestone glade, an open, rocky place in the woodland. Findley's daughter Daden, 3, pressed up against the sign and asked for mom's help reading it.

"She loves reading all the signs, or having us read them to her," Pat Dade said. "She wants to know what they say and what animals are out there."

Another pause in the hike came at a small pond along the trail. Three tadpoles were spotted. Curious eyes searched for watchable wildlife.

"They love turtles," Dade said. Luke, Findley's oldest child, moved up and down the pathway ahead of his cousins, a scout of sorts.

"I just like looking for stuff, looking for treasures," he said.

**"THE IDEA IS GETTING KIDS OUT IN NATURE EARLY SO THEY LOVE IT."**  
—KRISTIN FRITCHMAN







CLIFF WHITE

Anita B. Gorman  
Discovery Center in Kansas City

MDC trails range from easy to challenging, but natural wonders for all ages are found along the way.

The family maintains rules on hikes. Children must stay within eyesight of the elders. Littlejohn said one challenge is teaching their children not to blindly stick their hands under rocks, logs, or into holes in trees. “Look first, be careful,” they teach. But if a fall or some crawling dirties hands or clothes, no problem, the dirt washes off.

“I like these trails because the kids learn to appreciate nature and, really, life itself,” Pat Dade said.

### Trails for Every Age and Ability

Whether digitally linked or independent, families using conservation area trails for hiking can start simple and move on to more challenging terrain as children get older and more adventurous. In the St. Louis area, all eight trails at the August A. Busch Memorial Conservation Area (CA) are fairly level and easy to traverse. They range in length from less than .25 mile to 3.2 miles. But at the Weldon Spring CA in nearby St. Charles, three of the four trails in hilly, Missouri River bluff terrain are considered difficult. The 8.2-mile Lewis Trail there will thoroughly test a hiker’s stamina.

Also in the St. Louis area, Powder Valley Conservation Nature Center in Kirkwood offers the paved and disabled-accessible



Anita B. Gorman Discovery  
Center in Kansas City





Burr Oak Woods Conservation  
Nature Center in Blue Springs

**"I LIKE THESE TRAILS  
BECAUSE THE KIDS LEARN TO  
APPRECIATE NATURE AND,  
REALLY, LIFE ITSELF."**

**—PAT DADE**

Tanglevine Trail's .3-mile loop. But the center's 1.2-mile Hickory Ridge Trail is rated moderately difficult.

A variety of trail lengths and challenges give hikers more opportunities and a wide variety of nature to enjoy. Seven trail loops leading through forest or to a wetland are rated easy to moderate at the Springfield Nature Center. In Cape Girardeau, a trailhead at the Conservation Nature Center leads through forest along the White Oak Trace Trail in Cape County Park North, doable for most families. The Ridgetop Trail loop is ideal for strollers and beginning hikers, while the steep grades and a gravel surface of the other portions are great for those who want a healthy challenge.

The Mark Youngdahl Urban CA in St. Joseph provides three hiking trails within the city. Across the state at Kirksville, an interpretative nature trail winds through native grasses, forest, a marsh, and a pond at MDC's Northeast Regional Office. These are but a few examples of trails found at MDC's offices, nature centers, or conservation areas throughout Missouri. Trails long or short, easy or difficult, they all connect people and families with nature.



Jamie Sperry of Prairie Village, Kan., said her son, Hamilton, enjoys the Bethany Falls Trail at Burr Oak Woods best because it passes through limestone rocks and bluffs.

"He likes to climb," Sperry said. "At Burr Oak he gets some light, safe bouldering that's just right for a 2½-year-old. Then he likes to go inside the nature center and see the animals. ▲

**Bill Graham** is MDC's Kansas City Region media specialist. He's a lifelong hunter, angler, and camper who also greatly enjoys hiking and photography in Missouri's best wild places.





## USE YOUR BROWSER TO GET CLOSER TO NATURE



MDC has 14 nature and interpretive centers around the state. Each offers trails and programs to help you and your family get into hiking. Programs teach where to hike and how to keep excursions fun and safe for people of all ages and abilities.

Once you've learned the basics, strike out on your own at hundreds of other conservation areas that have hiking trails. It's a great way to discover and explore Missouri's beautiful forests, woodlands, wetlands, prairies, and glades.

Find details for trails and scheduled hiking programs, including maps and driving directions, at [mdc.mo.gov/atlas](http://mdc.mo.gov/atlas). Search for the centers and sort hundreds of other conservation areas for fun things to do outdoors.

## MDC NATURE AND INTERPRETIVE CENTERS

### Near Kansas City and St. Joseph

- ❶ The Anita B. Gorman Conservation Discovery Center in Kansas City
- ❷ Burr Oak Woods in Blue Springs
- ❸ Northwest Regional Office in St. Joseph

### In Northeast Missouri

- ❹ Northeast Regional Office in Kirksville

### In Central Missouri

- ❺ Runge Conservation Nature Center in Jefferson City

### Near St. Louis

- ❻ August A. Busch Memorial CA in Weldon Spring
- ❼ Columbia Bottom CA in Spanish Lake
- ❽ Powder Valley Conservation Nature Center in Kirkwood
- ❾ Rockwoods Reservation in St. Louis County

### In the Bootheel

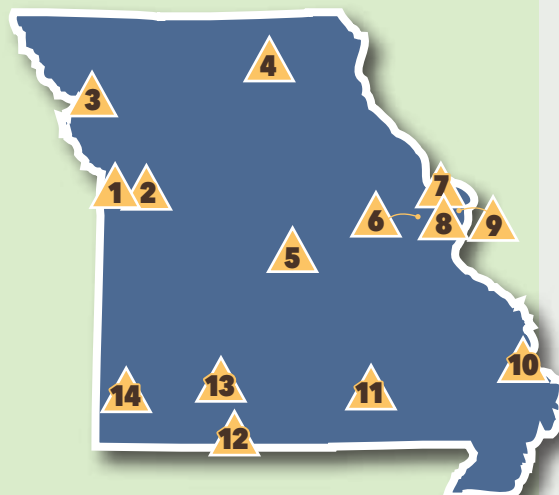
- ❿ Cape Girardeau Conservation Nature Center

### In the Ozark Region

- ❾ Twin Pines Conservation Education Center in Winona

### In Southwest Missouri

- ❿ Shepherd of the Hills Hatchery near Branson
- ❿ Springfield Conservation Nature Center
- ❿ Wildcat Park in Joplin





# Tower Grove Park



Great blue heron





## A magnet for birds and birders

STORY AND PHOTOGRAPHS BY DANNY BROWN





I STOOD NEXT TO A 30-FOOT SPRUCE, MY neck craned back as I trained my telephoto lens on a tiny bird, high among the branches. As the songbird came into focus, its sublime coloration revealed what I suspected — a Cape May warbler! Soon I heard voices from behind, expressions of wonderment, not unlike my own. I turned to see 40–50 birdwatchers, or birders if you prefer, their necks craned back like mine, binoculars trained on the crest of the spruce. I wasn't surprised to find myself immersed in the St. Louis Audubon Society's Saturday morning bird walk. After all, I was in Tower Grove Park.

A Cape May warbler sings atop a spruce tree.



An ovenbird after a bath in the park's famous bubbler

Tower Grove Park, a National Historic Landmark, is St. Louis' second largest park at 289 acres. It is considered one of the crown jewels of not only St. Louis, but of the state of Missouri. The park, which originated as a gift deeded from Henry Shaw in 1868, is governed by a Board of Commissioners appointed under the authority of the Missouri Supreme Court. The board, which always includes the director of the Missouri Botanical Garden, governs and manages the park. Each year, as designated in the original contract between the Mayor of St. Louis and Henry Shaw, the city provides funds to be expended upon the park at the discretion of the commissioners.

Most visitors to Tower Grove Park are there to walk or jog the paved paths that circle the park beneath its stately trees, including a variety of oaks, sycamore, magnolia, sweet gum, cypress, ginkgo, spruce, Osage orange, and many other species. Others spend time with their families at one of the 11 Victorian-era pavilions, all maintained in original coloration and detail. In addition to standard park amenities, including tennis courts, softball fields, and soccer fields, Tower Grove Park features a fountain



pond and several small lily ponds that attract ducks, geese, herons, and songbirds.

## The Project

My first introduction to Tower Grove Park began with a phone call from John Karel, now-retired park director,

during the winter of 2013. Karel was seeking a wildlife photographer to capture the numerous birds that visit the park each year. The photographs could then be used for educational and promotional purposes. He explained that Tower Grove Park serves as a resting stopover for migrating songbirds along the Mississippi River flyway. Birders refer to such sites, many of which are in urban areas, as migratory fallout areas, and Tower Grove Park is recognized by the National Audubon Society for its importance to birds. Currently, over 200 species of birds have been documented in Tower Grove Park, which is visited by approximately 5,000 birders each year.

As I discussed the proposal with Karel, I found his passion for the park and its importance to migrating birds so enthusiastic I couldn't resist the project. I agreed to make 20 photography trips to Tower Grove Park over the following year. Karel suggested that I start at the Robert and Martha Gaddy Wild Bird Garden in the northwest corner of the park. The Gaddy Garden consists of a forested area, denser than that found in the rest of the park,







A great egret in lacy plumage

and a landscape fountain, known to local birders as The Bubbler, which attracts an impressive variety of birds, including warblers, thrushes, vireos, flycatchers, woodpeckers, kinglets, sparrows, hawks, and owls.

### Winter

My first visit to Tower Grove Park was in February 2014. When I stepped out of my car, I was greeted by a red-tailed hawk sitting on a branch, watching me as I assembled my camera, tripod, and 500 mm lens. I worked frantically, assuming the hawk would skedaddle before I was ready, but to my surprise, the intrepid hawk continued to observe me, even as I positioned my tripod for an image. I remember how good I felt to have a nice image in the bag only minutes after my arrival. This was going to be a great project!

I continued to visit the park the rest of the winter,

capturing images of yellow-bellied sapsuckers, white-throated sparrows, brown creepers, winter wrens, and other winter visitors. On slow days, I just walked around the park, observing and photographing the exquisite details of the colorful pavilions. One day, I photographed the dragon ornaments of the Chinese Pagoda Pavilion. At the end of the project, I jokingly included one of the dragons along with my final submission of bird images to Karel.

### Spring

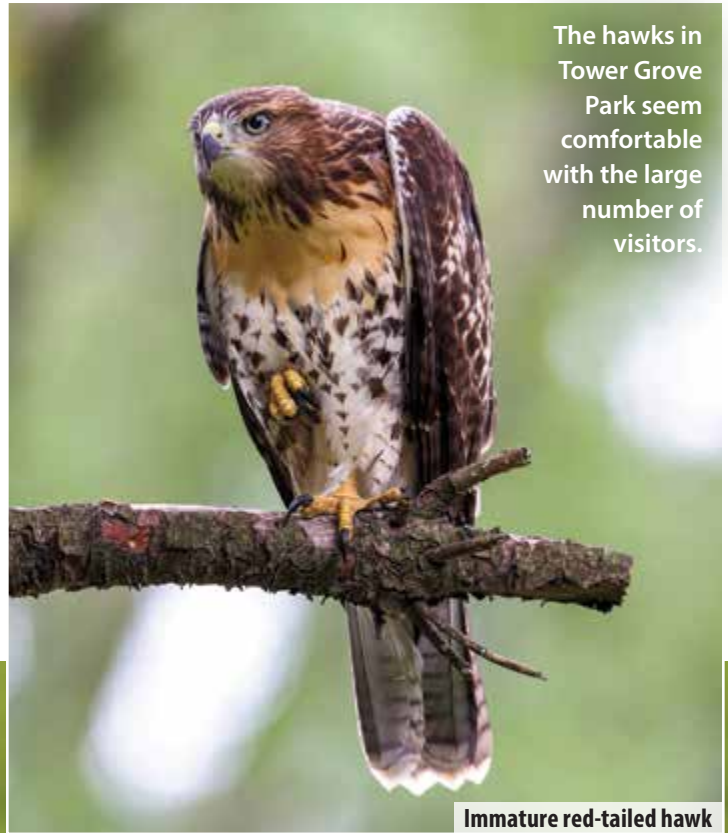
As winter gave way to spring, the birds became much more active, as expected. Several wood ducks took up residence at the fountain pond and adjacent lily ponds, providing great opportunities for colorful captures. Often, a drake wood duck would rest on an ornamental fence, creating the perfect urban wildlife scene. Brown



creepers kept me busy as they continued to search the trunks of stately cypress trees for insects. White-throated sparrows seemed to be everywhere! A great blue heron showed up one morning at the fountain pond, and I photographed it catching a huge goldfish. Later, I observed a great egret resting in a cypress tree, its lacy plumage flowing in the wind. The contrast of the white bird against the green cypress branches resulted in a stunning image.

In early April, Karel asked me if I had observed any great-horned owls in the park. He told me that owls had nested in the park in previous years, so I should be on the lookout. The next weekend, I wandered through the park, checking every tree for an owl nest. Eventually, a maintenance person led me to a dead tree where two juvenile great-horned owls were sleeping in a hollow.

Ducklings gather beneath a mama wood duck for warmth on a cool morning.



The hawks in Tower Grove Park seem comfortable with the large number of visitors.

Immature red-tailed hawk





I captured several images of the owlets over the next few weeks, and watched as they branched out into other parts of the nest tree. Occasionally, I saw the parents in neighboring trees keeping an eye on me from afar. One morning I returned to find the fledglings had left the tree and moved to other trees nearby. That evening, St. Louis had a strong storm and the nest tree fell to the ground. I was happy that the owls survived, and I watched them for weeks as they became more independent, with a little help from their parents.

Near the end of April, the arrival of warblers and other migrants began in earnest. Tower Grove Park came alive with tiny, colorful songbirds making their way from as far south as Central and South America to their breeding grounds much farther north to the Great Lakes and Canada. Suddenly, I didn't have the park to myself anymore. During each visit to the Gaddy Garden, I was surrounded by dedicated birders, some from other states. Although I'm not particularly social, at least where my photography is concerned, I couldn't resist interacting with these knowledgeable birders, often asking them for verification of a species identification or for information about the habitat preferences and timing of a particular bird.

As the migration progressed, my project file became filled with dazzling images of tiny gems, such as the magnolia warbler, chestnut-sided warbler, black-throated green warbler, black-and-white warbler, golden-winged warbler, yellow-rumped warbler, Nashville warbler, Tennessee warbler, American redstart, and ovenbird. My lens also found the yellow-billed cuckoo, summer tanager, yellow-bellied flycatcher, yellow-throated vireo, Louisiana waterthrush, northern waterthrush, brown thrasher, eastern towhee, rose-breasted grosbeak, and many others. Every visit throughout the spring was a joyful experience, far beyond my most optimistic expectations.

By late spring, the migration was waning and I began to focus on other species in the park. I sat for hours by the fountain pond watching green herons, great blue herons, and great egrets feeding on everything that moved. I photographed a mama wood duck as she nervously tended to her brood of disorderly ducklings. One of my favorite images of the entire project came on a windy and cloudy summer morning when I observed the wood duck and her ducklings jump from the fountain pond onto a sidewalk. As the chilly wind blew across the park, the ducklings scurried to their mother and gathered underneath her for protection from the cold. As I captured the moment, I knew it would not only tell a story, but would be touching to bird lovers and nature lovers alike.

## Summer

During summer, I concentrated on a very approachable red-tailed hawk. One memorable afternoon I photographed the immature hawk on a short branch beneath a well-known nest in the park. The young hawk watched me with curiosity as I captured its image in great detail. Because things were slow in the summer, I took time to photograph all of the pavilions in the park. I also made an image of the park's Grand Avenue entrance. I remember standing in the middle of the busy avenue, just after sunrise, trying to get a shot of the park's historic entranceway.

## Fall

By fall, my effort returned to migrating songbirds, this time on their way back south for the winter. Although their plumage was not as stunning as that of spring, they were still quite beautiful to watch and photograph as they seemed to fill every tree in the park, especially after a rainstorm. It was great to renew the friendships I had made in spring with the park's venerable birders.

As the Tower Grove Park project came to an end, I became quite nostalgic as I went through all of the images, selecting the best ones to share with Karel and his staff. Every image reminded me of my time in the park and all of the wonderful birds, wildlife, and people I had encountered, including several of the park's maintenance crew. My wife, Joyce, and I were honored to be invited to Karel's retirement reception at the Piper Palm House within the park. I was humbled as he introduced me to some of the park's long-time supporters, including the Mayor of St. Louis. That evening, I felt like Tower Grove Park's resident photographer.

It has been two years since I completed the Tower Grove Park project. Since then, the Gaddy Wild Bird Garden and its famous bubbler have been restored. Native trees and shrubs are being established in place of troublesome invasives with assistance from the St. Louis Audubon Society and the Webster Groves Nature Society. I still visit Tower Grove Park frequently in search of migrating warblers, great-horned owls, wood ducks, and other beautiful creatures of St. Louis' urban landscape. I'm happy to say that when I encounter a birder, neck craned back to get a look at a tiny bird, there is a good chance I will know them by name. ▲

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*Danny Brown is a freelance wildlife photographer, specializing in Missouri animals. Before retiring from the Missouri Department of Conservation, he served as a biologist for 25 years. Danny and his wife, Joyce, live on 60 acres outside of Union where he captures many of his best images.*



The following images are examples of the variety of birds that visit Tower Grove Park.



Winter wren  
Fox sparrow



Magnolia warbler



Black-throated green warbler  
American redstart





# ANSWERING THE CALL







## **The Department of Conservation helps Missouri communities hold the line against wildfires**

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**STORY AND PHOTOGRAPHS BY BILL GRAHAM**





**D**AVE NIEBRUEGGE DROVE PAST FLAMES creeping toward a two-lane blacktop on a dry, warm, and windy late-winter day. It was the perfect conditions for dangerous wildfires. Smoke from several fires drifted for miles over the wooded, rolling hills of southeast Benton County, threatening a few homes.

“That one will burn itself out when it hits the road,” said Niebruegge, an MDC private land conservationist and trained and experienced firefighter. “Other fires are scattered all over.”

So he drove on, and about 5 p.m., he turned into a driveway and parked near a farmhouse with a large red barn nearby. Fire had blackened pastures to the south and smoke curled up from charred forest a few hundred yards to the west. Volunteer firefighters and MDC fire crews stood in the yard, watching the smoke and hoping embers didn’t jump a fire line.

James and Diane Ruffner watched, too, as smoke drifted toward their home.

“It was burning up on that hill last night,” said James. “During the night, it came down behind us and we were just about engulfed.”

### Providing Critical Help

Luckily, both community volunteers and MDC firefighters responded when the Ruffners called for help. Volunteers from the Deer Creek Fire Protection District and the Northwest Fire Protection District worked fires in the area using gear that an MDC program helped them obtain. One of MDC’s bulldozers helped etch a fire line through the timber between the wind-pushed fire and the house.

“The Conservation Department’s help is very important to us,” said John Spry, fire chief for Deer Creek. “Both the equipment we get and the help we get when we fight a fire, they’re big assets to us.”

MDC provides critically important support for rural fire departments throughout Missouri. When grass, brush, or forest fires occur, MDC personnel trained to fight wildfires respond to assist. The volunteer fire crews they help are often using trucks, protective gear, tools, and radios procured with help from a federal surplus equipment program and MDC’s Volunteer Fire Assistance Matching Grant Program. Federal agencies such as the U.S. Forest Service (USFS) are partners. The agency proudly helps communities protect property and conserves quality wildlife habitat from destructive blazes.

Last year, MDC provided \$338,490 to 156 rural fire departments. Grants and surplus equipment goes to fire departments who serve 10,000 residents or less. The program allows small departments to acquire safety gear and equipment they would not otherwise be able to afford. More than \$7.5 million in assistance went to rural fire departments over the past 30 years.





Gas-powered backpack blowers are a key tool in clearing dry leaves to build a bare-ground fire line to halt flames. Backfires are carefully lit along fire lines downwind of the moving blaze to further reduce fuel along the fire line.

“These grants mean increased safety for the firefighters and better protection in forested areas of the state,” said Ben Webster, forest field programs supervisor with MDC.

The Deer Creek and Northwest fire districts each received almost \$3,000 in grants in 2016 to purchase radios. Communication is critical when fighting fires over broad, broken terrain.

### Reporting to the Scene

About 5:30 p.m., the radio in Niebruegge’s pickup crackled with a message.

“There’s a fire up here threatening a house and nobody’s on it yet,” a voice says.

Niebruegge drove down another winding, two-lane black-top toward thick, white smoke pulsing skyward in the general vicinity of a hamlet called Edwards, south of Lake of the Ozarks’ upper end. A wildfire was on the move through leaves and grass.

“That’s fresh smoke there,” he said.

MDC personnel are not allowed on a fire line unless they’ve been trained in firefighting safety, wildfire behaviors, causes, and methods to extinguish. Many have worked on multiple fires. MDC also loans trained firefighters to help





states in the West battle major wildfires ravaging large areas. The USFS bears the cost of their services, and the crews bring techniques and experience back to apply to Missouri fires.

Missouri wildfires are rarely as large as fires in the West that make national news reports. Our higher humidity helps. So do roads and farm fields that make creating fire barriers easier. However in late winter, early spring, drought summers, or autumn, conditions can ripen for large fires. If it is your house, barn, or turkey woods in the fire's path, it's severe.

### Good Fire Versus Bad Fire

Not all fires are bad. Prescribed burns use fire to improve habitat for wildlife or manage forage cover. But those fires are under conditions with moderate humidity and temperatures, light winds, and the knowledge that the fuel load for the fire is safe.

Wildfires, however, can burn destructively when pushed by high winds through heavy fuels with low humidity and warm temperatures. They are dangerous to people, property, and natural areas. Wind can blow sparks and embers to light fires beyond the main fire.

"They can move very quickly and be hard to catch," Niebruegge said.

Careless trash and leaf burning, lit cigarettes tossed from car windows, or even sparks from machinery can start fires when conditions are ripe. Authorities investigated the Benton County fires that MDC crews helped battle in February 2016 as possible arsons.

### Back on the Scene

MDC crews and volunteers began fighting those blazes near Edwards as dusk fell about 6 p.m. The fire had scorched a grassy meadow and now burned a few miles through forest. Lights flashed atop fire district trucks. Pungent smoke from burning leaves and the acrid scent of burnt wood drifted through oak, hickory, and walnut trees.

"MDC is going to go down the hill and attack it and use blowers to build a fire line and keep it from those houses," Niebruegge told the volunteers.

Another MDC fire crew chief had scouted the area and developed a plan. The volunteers agreed to approach the fire from another side, close to a nearby house. Experienced fire crews don't just go in and swat flames. They

plan attacks. They decide who is going where, and what radio channels will be used for communication.

"If we're not coordinated," Niebruegge said, "we could lose control of a fire, or even worse, get a firefighter hurt."

Cory Gregg, an MDC resource forester, and Vince Belfiore, an MDC resource assistant, strapped on powerful backpack blowers. Motors hummed like chainsaws as they used the air blowers to push thick leaf litter and sticks to one side, creating a 4- to 6-foot wide fire line. Dusk dimmed light and the smoke became more ghostly.

Up and down steep hills, Gregg and Belfiore worked in a line aimed at getting ahead of a fire advancing through the woods. Darkness fell, making it harder to spot sure footing. Flames from a few inches to a few feet high flick-

ered and shimmered, pushed by a west wind and pulled by dry leaves and downed limbs ready to burn. Wind provides more oxygen that makes fires burn hotter and faster. Fire sometimes makes its own air currents, too, especially when burning uphill.

A wildfire is not steady flames like turning on a gas-stove burner or burning a pile of leaves in a yard. Instead, random snaps and pops echo steady amid combustion with no human control. Flames move through leaves and underbrush at varied paces. They leap upward when catching downed limbs and dead

trees on fire. In this blaze, a sudden rise in the breeze pushed intense heat across the fire line, a reminder that fire can harm as it consumes.

By 8 p.m., the fire crew armed with blowers made a westward turn, still hiking up and down hills. Niebruegge trailed several hundred yards behind and tamped out hotspots along the fire line. He used a drip torch to set backfires on the upwind side of the fire line to reduce fuel in front of the advancing wildfire, and he backtracked at times to make sure the fire had not jumped the line. A dead tree snag was pushed down so it would not catch fire and fall on someone or onto the unburned side of the fire line. The men worked in darkness, except for headlamps and orange glows from the long, unbroken line of flames on the upwind side of the fire line.

They paused at an old farm road, where they met with other fire crews and volunteers. But the fire had jumped the road and drifted toward a house. A resident there had been trying to build a fire line with a broom. So the crews in sooty, flame-retardant clothes headed west again and

**ANOTHER MDC FIRE CREW CHIEF SCOUTED THE AREA AND DEVELOPED A PLAN. EXPERIENCED FIRE CREWS DON'T JUST GO IN AND SWAT FLAMES. THEY PLAN ATTACKS.**



cleared more fire line until the house and the neighborhood was safe. Weary firefighters waited for rides back to their vehicles as 10 p.m. neared.

Chief John Spry said the help MDC fire crews provide to volunteers and communities when fighting a big wildfire is critical.

“Their expertise of how to contain a fire has helped us in the past,” Spry said. “It makes it safer and easier for everyone. And there’s times when we can’t fight a fire without that dozer.”

But sometimes in Missouri’s rugged countryside, a fire is squelched with rakes, shovels, blowers, and elbow grease, mostly like MDC employees have been doing in the state’s forests for three-quarters of a century.

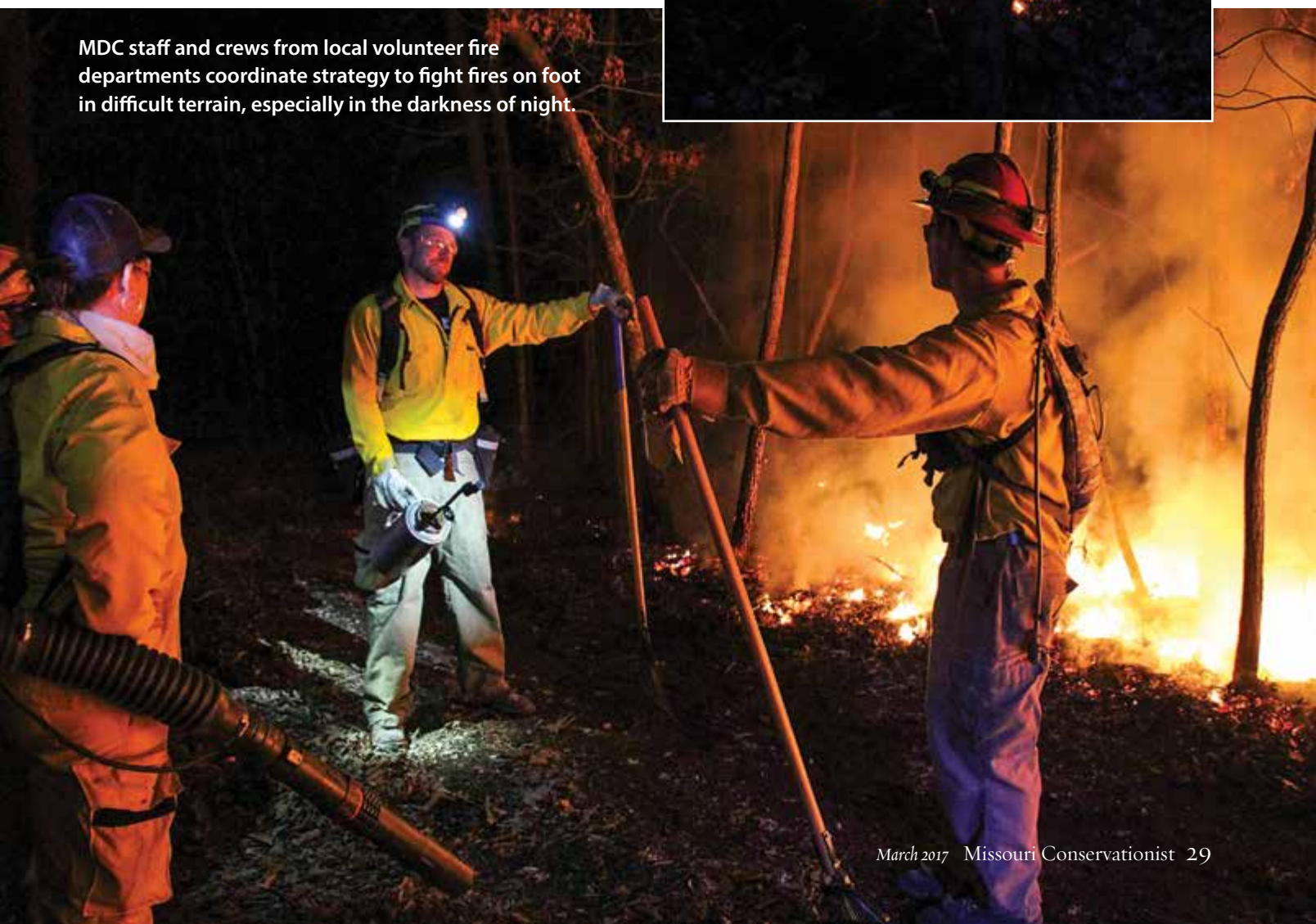
“That’s often why we’re called,” Niebruegge said. “We have the hand crews that can backpack into a fire and stop it before it gets to structures, as well as more timber.” ▲

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**Bill Graham** is MDC’s Kansas City Region media specialist. He’s a lifelong hunter, angler, and camper who also greatly enjoys hiking and photography in Missouri’s best wild places.



MDC staff and crews from local volunteer fire departments coordinate strategy to fight fires on foot in difficult terrain, especially in the darkness of night.





## American Bittern

BIRD WATCHING IN the spring is a popular activity in Missouri. The temperatures are warmer, and migratory birds are returning from their winter getaways. It's a great time to grab your binoculars and head to your favorite conservation area where the landscape is filled with birds. But not all birds are easy to find, even with the aid of binoculars. Some are masters of disguise.

I'm referring to the American bittern.

American bitterns (*Botaurus lentiginosus*) are a medium-sized species of wading birds in the heron family. They have thick compact bodies with shorter legs and thicker necks than typical herons and long, straight, sharply pointed bills. A streaky pattern on their neck helps them blend in with the reedy background of a marsh. The birds are mainly crepuscular, or mostly active at dawn and dusk. More often heard than seen, the male bittern has a loud, booming call especially during mating season.

I had my first encounter with an American bittern many years ago when I was searching for returning marsh birds in early April, which is usually when they migrate from the south. I was intrigued by their behavior and made several trips to marshes just to photograph them.

The stealthy bird usually moves slowly and carefully to conceal its movement. With its neck stretched and bill pointed skyward, it can stay motionless for a long period of time, which makes finding this bird challenging.

However, on this April day, the bird's bright yellow eyes, which tracked my every movement, gave its position away. Once I spotted it and stood still with my lens pointed at the bird, it was a game of patience. After a while, it began to sway its neck back and forth slowly and placed its feet carefully as it tried to determine if I was a threat or not, before resuming its search for food along the shallow marsh.

These birds tend to forage in shallow marshes. Like other members of the heron family, the American bittern feeds in marshes and shallow ponds, preying mainly on fish and other aquatic life such as frogs, tadpoles, insects, crayfish, and even snakes. In some drier habitats, they will eat rodents and voles.

American bitterns have a wide distribution throughout North America, part of Central America, and the Caribbean Islands. During summer months, female birds lay three to five pale olive-brown eggs on nests in dense marsh growth above shallow water. The eggs hatch within 24–28 days. Young birds leave the nest after one to two weeks, but remain nearby and are fed up to four weeks. They become fully fledged after seven weeks. Only females care for the young, feeding them by regurgitation.

Finding American bitterns takes time, patience, and a little luck. Although they are secretive by nature and well-camouflaged, they are fairly numerous in Missouri, especially during spring migration from mid-March through May. Many wetlands on conservation areas offer excellent chances to view these birds. When visiting wetlands, scan the area slowly with your binoculars along the edge of reeds and open water. If it's springtime, try to listen for their unmistakable, weird, pump-er-lunk call, too. Your chances of finding them will be greatly improved, and you might be rewarded with the sight of these elusive birds.

—Story and photograph by Noppadol Paothong

📷 600mm lens • f/8 • 1/125 sec • ISO 400



We help people discover nature through our online Field Guide.

Visit [mdc.mo.gov/field-guide](http://mdc.mo.gov/field-guide) to learn more about Missouri's plants and animals.







## Grand Pass Conservation Area

*Located along the Missouri River, this predominately wetland area in Saline County offers outdoor fun, including waterfowl and deer hunting, wildlife viewing, and mushroom hunting.*

GRAND PASS CONSERVATION Area offers excellent recreational opportunities in March. The area provides outstanding snow goose hunting prospects during the Light Goose Conservation Order from Feb. 7 through April 30. Hunters should note there are designated refuge pools where hunting is not allowed. Peak numbers of snow geese typically arrive on the area during the last week of February through the first week of March.

Wildlife viewing is also popular during this time of year. After duck season through Oct. 14, the area opens to the general public for drives on designated roads through the wetland complex. After Canada goose season, the refuge gates are opened to allow access for viewing. From the comfort of a vehicle, visitors can view many species of ducks, geese, and large numbers of bald eagles. The area also has an observation tower that is open to the public all year. The tower is located on the southeast portion of the area and allows users to enjoy vistas of the east refuge pools and Teteseau Lake, a remnant oxbow of the Missouri River. Sightseers may also see our resident sandhill cranes, which tend to reside on this portion of the area.

The 5,301-acre area is best known for its waterfowl hunting opportunities in the fall. The area has a diversity of wetland habitats, such as emergent marsh, moist soil, and agricultural crop units. Approximately 3,800 acres are managed with a variety of techniques to create optimal habitat for migratory birds and resident wetland species. Water is pumped into the area during the fall and winter months to coincide with waterfowl



16–35mm lens • f/4 • 1/250 sec • ISO 100 | by David Stonner

migration and to provide new food resources on a daily basis. Hunting is allocated through a daily managed waterfowl drawing, and the area has one ADA-accessible blind. Approximately 800 acres of bottomland forest also sit along 6 miles of Missouri River frontage on the area and provide excellent deer hunting opportunities.

The lure of morel mushrooms in the spring attracts hundreds of visitors to the area each year. A study conducted to assess recreational activities on the Missouri River found mushroom hunting to be the second most popular activity on the area, just behind waterfowl hunting. Bank fishing the Missouri River at the fishing access points and small game hunting in designated nonpool units are also enjoyed on the area.

—Robert Henry, area manager



### Grand Pass Conservation Area

**Recreation Opportunities:** Waterfowl, deer, and small game hunting; wildlife viewing; fishing; bird watching

**Unique Features:** Wetland, bottomland hardwood forest, Missouri River frontage, observation tower

**For More Information:** Call 660-646-6122 or visit [short.mdc.mo.gov/Z3P](http://short.mdc.mo.gov/Z3P)





# MDC DISCOVER nature

To find more events near you, call your regional office (phone numbers on Page 3), or visit [mdc.mo.gov](http://mdc.mo.gov) and choose your region.

## DISCOVER NATURE — SHED ANTLER HUNTING

**MARCH 12 • SUNDAY • 8:30–11:30 A.M.**

*Kansas City Region, Parma Woods Shooting Range and Outdoor Education Center, 15900 NW River Rd., Parkville, MO 64152*

*Registration required, call 816-891-9941*

*Families, youth must be accompanied by an adult*

Each year, bucks shed their antlers. Looking for shed antlers is a great way to spend time outdoors with your family.



## CRAPPIE FISHING FOR BEGINNERS

**MARCH 14 • TUESDAY • 6:30–8:00 P.M.**

*Southwest Region, Springfield Conservation Nature Center, 4601 S. Nature Center Way, Springfield, MO 65804*

*Registration required, call 417-888-4237*

*Ages 12 and older*

Whether you fish for crappie during the winter or wait for them to spawn in the spring, crappie can be caught throughout the year. Join MDC Fisheries Biologist Shane Bush and Outdoor Skills Specialist Greg Collier to explore when, where, and how to catch one of the Ozarks favorite panfish.

## NATURESCAPING WORKSHOP AND NATIVE PLANT SALE

**MARCH 18 • SATURDAY • 8:00 A.M.–12:45 P.M.**

*Kansas City Region, Burr Oak Woods*

*Conservation Nature Center, 1401 NW Park Rd., Blue Springs, MO 64015*

*Registration required, call 816-228-3766*

*Adults*

Beautify your landscape with some of Missouri's best natural resources — native plants! Learn how to save time, money, and create wildlife habitat. Native plants will be available for sale.

# 5 IDEAS FOR FAMILY FUN



## ARCHERY BASICS

**MARCH 18 • SATURDAY • 1–2 P.M.**

*Southeast Region, Cape Girardeau Conservation Nature Center, 2289 County Park Drive, Cape Girardeau, MO 63701*

*Registration required, call 573-290-5218 beginning March 1*

*Ages 12 and older, ages 12–17 must be accompanied by an adult*

Be right on target! Try your hand at archery and experience a fun way to enjoy the outdoors. All archery equipment will be provided.

## DISCOVER NATURE — TURKEY HUNTING BASICS

**MARCH 25 • SATURDAY • 8:30–11:30 A.M.**

*Southwest Region, Andy Dalton Shooting Range and Outdoor Education Center, 4895 N. Farm Road 61, Ash Grove, MO 65604*

*Registration required, call 417-742-4361*

*All ages*

Join us to discover the basics of turkey hunting in the spring. We will cover safety, scouting, calling, proper set-up, shotgun ballistics, and much more.





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## I Am Conservation

Ronnie Morton's land covers part of Shannon and Reynolds counties in southern Missouri and lies in the northern portion of the Missouri elk restoration zone. "I worked with Ronnie extensively before I was involved with the elk project," said David Hasenbeck, elk program manager with MDC. "Ronnie is a long-time cooperator with the Conservation Department and is not afraid to put significant effort into his habitat management. Now that we have elk in the area, his work is even more important. Partners, such as Morton, provide safe foraging areas for elk in the northern part of the range where grasslands are limited." Hasenbeck said Morton is also an ally when it comes to tracking elk movement, reporting sightings, and allowing MDC staff access to his farm to monitor elk. "We want our property to be beneficial to wildlife," said Morton. "We enjoy watching wildlife, and we frequently have visitors who enjoy coming by to see the wildlife, especially elk, bear, turkey, and deer." Morton has engaged in significant habitat improvements with help from MDC. "His property lies in an area of high ecological importance," said Hasenbeck. "The wildlife work he is conducting benefits other high priority plants and animals, such as salamanders, bats, woodpeckers, and more." —*photograph by David Stonner*